

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

By: Shogo MURAMATSU et al

P.T.O. Confirmation No. 7398

Serial Number: 09/423,981

Group Art Unit: 1775

Filed: February 18, 2000

Examiner: Jason L. Savage

For: ALUMINUM-ALLOY BASED SLIDING MATERIAL

AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22231-1450

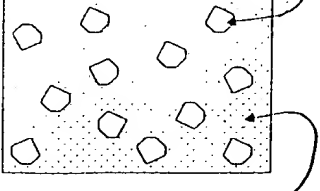
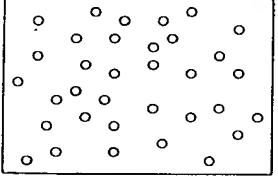
Date: August 30, 2004

Sir:

In response to the Office Action dated March 29, 2004, please amend the above-identified application as set forth below:

Amendments to the Claims begin on page two of this paper.

Remarks begin on page four of this paper.

	Structure	Composition	Sliding Properties
Conventional Cast Al-Si alloy (A)		Si content of cast able alloy is 30% at the highest.	Primary Si particles bear load. Eutectic Si particles are so fine that the aluminum matrix is liable to be in direct with the opposite shaft. Seizure resistance of the cast Al-Si alloy is low.
Inventive Material (B)	Mixture of (A) and (C)	Si content is as high as 50%	Primary Si bear load. Load resistance is therefore, high. Seizure resistance is enhanced by a large amount of Si particles.
Material of Mori (C)		The same as above	A large amount of fine Si particles distribute. Coefficient of friction is low. Wear resistance is improved as is described in the specification of Mori. However, since the Si particles are fine as compared with the primary Si particles, the opposed shaft is liable to be in contact with the Al matrix. The load resistance is poor.